PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)		
(51) International Patent Classification 6:		(11) International Publication Number: WO 99/16417
A61K 9/00	A1	(43) International Publication Date: 8 April 1999 (08.04.99)
 (21) International Application Number: PCT/US97/17899 (22) International Filing Date: 1 October 1997 (01.10.97) (71) Applicant (for all designated States except US): FLEMING-TON PHARMACEUTICAL CORPORATION [US/US]; 43 Emery Avenue, Flemington, NJ 08822 (US). (72) Inventor; and (75) Inventor/Applicant (for US only): DUGGER, Harry, A., III [US/US]; 548 Sargentville Road, Flemington, NJ 08822 (US). (74) Agent: BEHR, Omri, M.; 325 Pierson Avenue, Edison, NJ 08837 (US). (54) Title: BUCCAL, POLAR AND NON-POLAR SPRAY OR CO. 		BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.
(ET) Abatmant		

Buccal aerosol sprays or capsule using polar and non-polar solvent have now been developed which provide biologically active compounds for rapid absorption through the oral mucosa, resulting in fast onset of effect. The buccal polar compositions of the invention comprises formulation (I): aqueous polar solvent 30-99.89 %, active compound 0.001-60 %, optionally containing flavoring agent 0.1-10 %. The non-polar composition of the invention comprises formulation (II): non-polar solvent 20-85 %, active compound 0.005-50 %, and optionally flavoring agent 0.1-10 % and propellant 50-80 %.

Applicants: Donald W. Landry and Shi-Xian Deng U.S. Serial No.: Not Yet Known (national stage of PCT International Application No. PCT/US2003/039207) Filed: Herewith

Exhibit 4